





EXPERIENCE

06/2020 - today

Platform engineer

Blockchain.com

intern. then part-time, Performing production incident response - with PagerDuty

then full time, then part-time

Shipping under time constraints on several large JVM codebases that power the cryptocurrency ex-

Scaling up distributed systems with a microservices event-driven architecture

Engineering tooling, like Gradle plugins, in order to facilitate development and allow for faster iterations

06/2020 -

Software Engineer Intern

Emit. Inc.

10/2020

Four-person startup where I worked closely with co-founders to pivot into time data analytics.

Developed a data processing pipeline and libraries in Kotlin and Python on top of serverless tech on

AWS (Lambda, DynamoDB, ElasticSearch)

EDUCATION

2018 - 06/2022 MEng Computer Science – currently First Class Honours

Imperial College London

Focus on Software Engineering, Distributed Systems, Network and Computer Security, Systems and Data Scalability, Logic-based AI, Type Systems for Programming Languages, Simulation & Modelling. Additional Business School modules: Finance & Financial Markets, Business Strategy, Project Manage-

ment.

French Baccalaureate (S-SI) - Highest Honours 2015-2018

French Lycée of Madrid

High-school diploma with Engineering Sciences with Further Maths specialisations, and completed optional Portuguese and Music modules.

Extracurriculars include two Model UNs, Drama, Choir, student representative, competing in the basketball team.

PROJECTS

see my full portfolio at nico.dcotta.eu

AWS (Lambda, DynamoDB, EC2), Kotlin, VueJS, TS

DJStreamr, collaborative streaming service for DJs

djstreamr.com

Music synchronisation protocol implemented as a webapp with an event-driven platform architecture which leverages serverless technology.

Kotlin, JVM bytecode, ARM11

assembly

WACC, multiplatform compiler

cottand/WACC

Multiplatform compiler from WACC (a toy language) to JVM bytecode and ARM11 64-byte assembly that supports basic constructs like stack allocated primitives, and heap-allocated arrays and pairs.

C, x86 assembly

PintOS, UNIX-like OS

pintos-os.org

Pint-sized OS with features such as advanced scheduling, paging, virtual memory and user programs with support for some of the C stdlib.

Unity, C#

ICHack'19 (Hackathon) - Best Mobile App Award

cottand/ICHack2019

AR-powered teaching app in that brings interactive 3D models to students' phones.

Typescript,

IVANN, neural-network building GUI

IVANN website

VueJS, Python

Interactive code generator (for Python Tensorflow) to empower research by abstracting away from code, written in Typescript with VueJS

Elixir, Paxos

Multi-Paxos

cottand/multi-paxos

Implementation of a variation of the Paxos consensus algorithm, as specified in the paper Paxos Made Moderately Complex

TECHNOLOGIES

Proficient in JVM (Kotlin, Java), Gradle

Experience with AWS (Lambda, DynamoDB EC2, S3, CodeDeploy, API Gateway), Nomad

Python, C, Haskell, Typescript, Elixir

gRPC + protobufs, Kafka, Akka, PostgreSQL, Docker, APM, ConcourseCI, TravisCI, GitlabCI, React, VueJS

LANGUAGES

English - proficient (C2 certification)

Spanish - native French - proficient

Portuguese - rudimentary

HOBBIES

I enjoy DJing as well as kitesurfing and rock climbing!